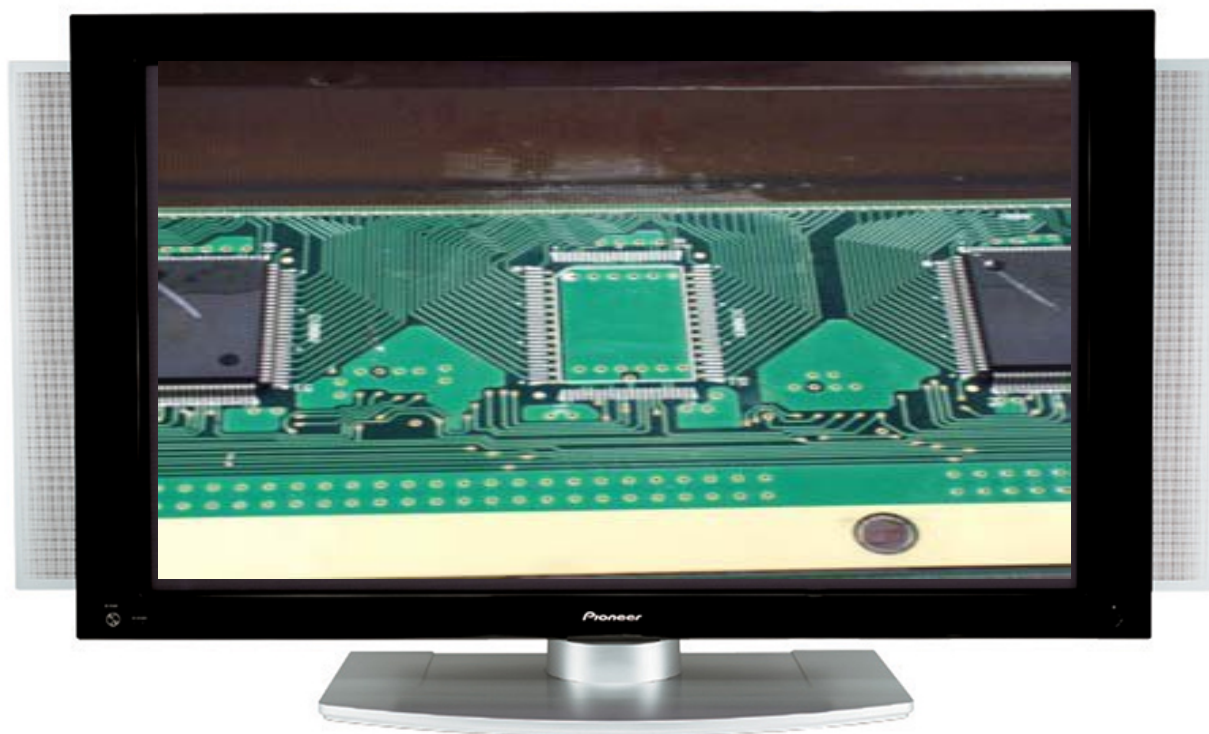


Pioneer Plasma

Scan Board & IC Troubleshooting Scan IC Removal & Reinstallation Guide



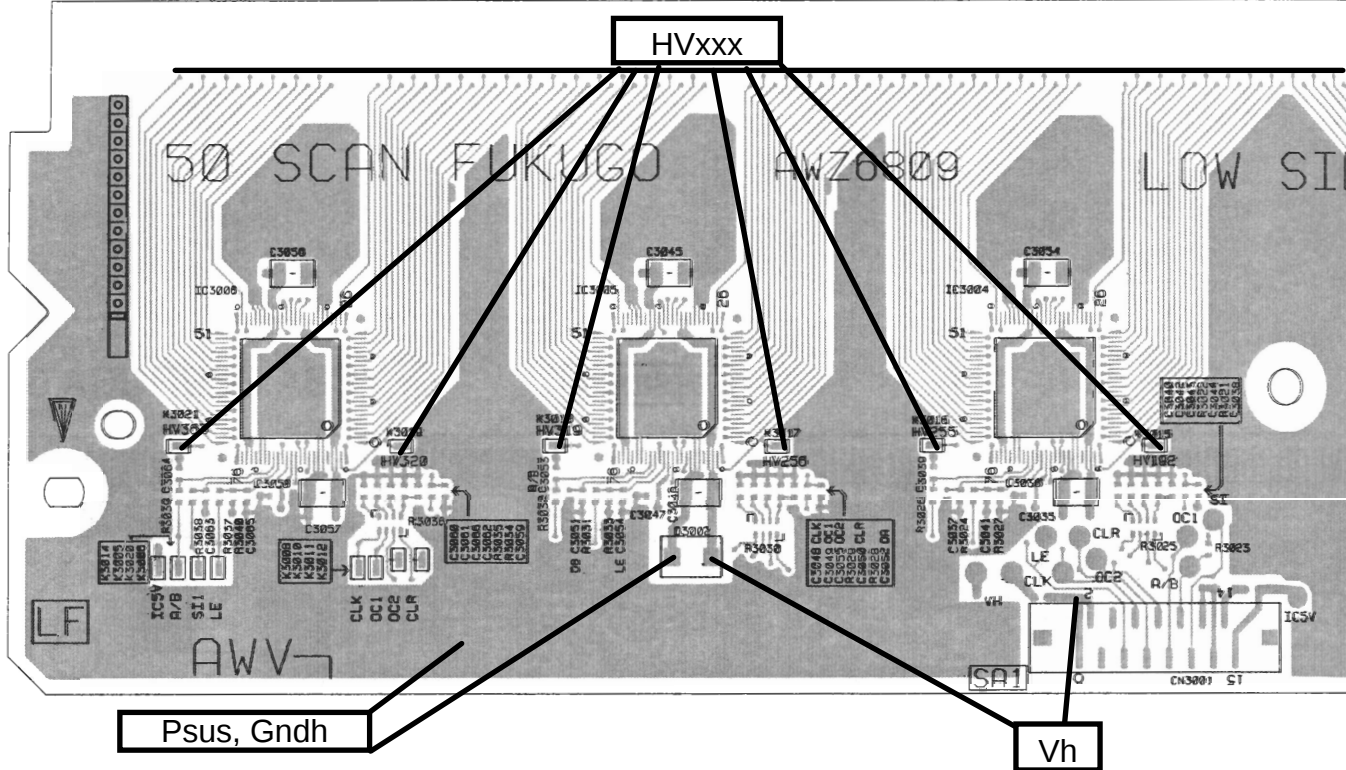
Contents

Topic	Page
Checking drives and Scan IC's	4~5
Removing and reinstalling scan IC's using nozzle type soldering station	6
Removing and reinstalling scan IC's using Chipquick	7
Removing blue glue from scan IC's	8~10
Blue glue model list	11

50 SCAN A ASSY

50 SCAN A ASSY
(ANP2042-B)

SIDE A



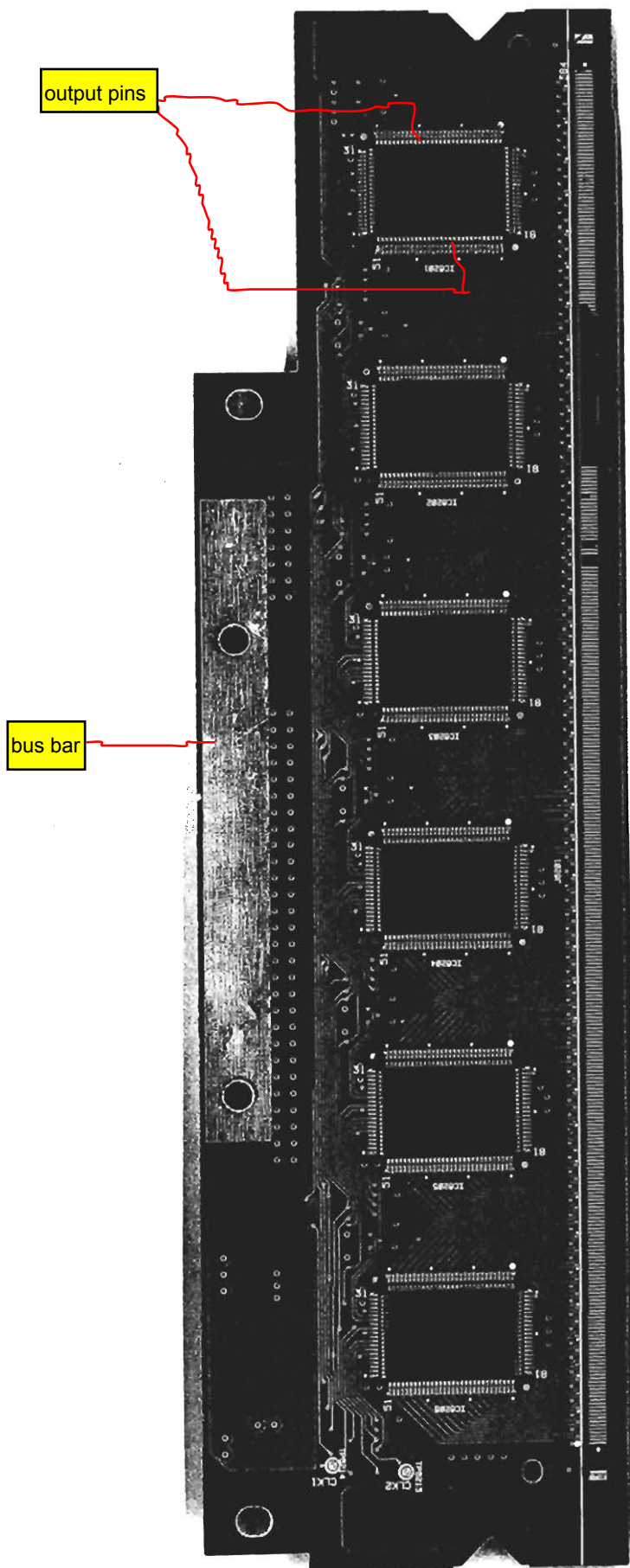
Checking drives and scan ICs

Use static precautions. Do not operate with any connectors unplugged.
Replacing scan ICs in home is NOT recommended.

If scan board is disconnected, be sure to isolate buss bar also. Discharge all scan board connections including buss before reconnecting.

Unplug power connector from X or Y drive. Perform diode check with DVM from Vsus to ground. Should check as a diode. If Y drive shorted, next unplug Scan PCBs. If short goes away, check Scan ICs. If still shorted, replace drive.

With Scan PCB unplugged, perform diode check from Vh to Psus (buss bar). Should check as a diode. If shorted, check resistance from Vh and Gndh (buss bar) to HVxxx (each IC has 2 test pads). Should measure 3 to 5 meg ohm (varies by DVM). Remove IC (see SK-D04003) that measures different from others and recheck. If all check the same, but Vh is still shorted, you must check all 64 HV pins of each IC. Remove side rail and 32 feed throughs are accessible near the panel connection. If nothing shows up, loosen Scan PCB and flip over to access all 64 connections.



To check for defective scan ICs.

First determine which scan board has the problem by doing a diode check between VH and GNDH after you disconnect the ribbon cable between the Y drive and the upper and lower scan assy. The assy that shows a short is the one with the bad scan IC

In some panels you must remove the blue glue by using flux remover or acetone.

Measure (diode check) between the output pins on the scan ICs and the bus bar on the scan board using either an analog meter or a digital meter in the manual mode. All outpins on all scan ICs should measure about the same resistance. (~300-600 ohms). If not, that IC is defective. Remove that IC and then re-check VH. There can be more than one bad scan IC.

How to replace the SCAN ICs

There are two possibilities:

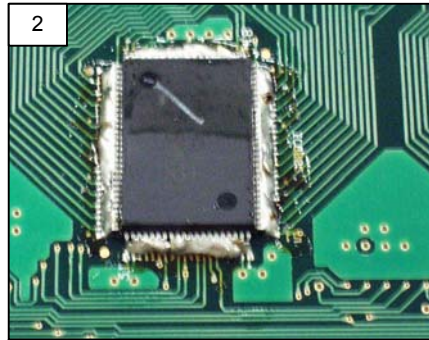
- with a nozzle type soldering station
- with the CHIPQUICK SMD1 removal kit

Work ESD safe

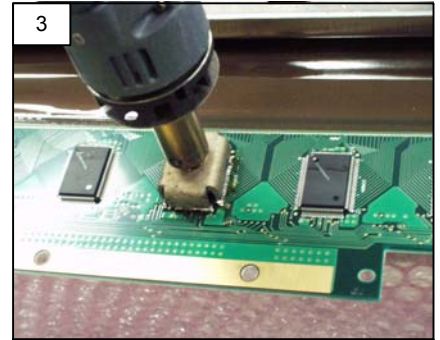
With nozzle type desoldering station



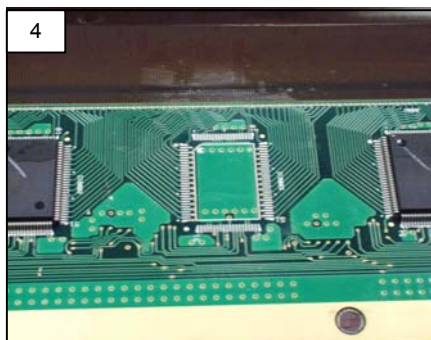
Mount the right type of nozzle



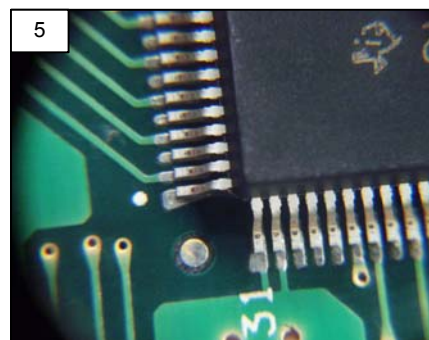
Add solder to all pins of the defective SCAN IC



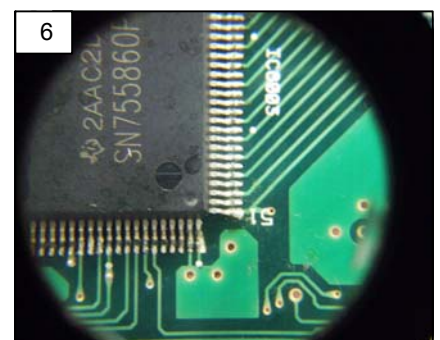
Heat up all pins with the nozzle. When solder reflows, remove IC with pick up tool



Remove IC and clean PCB. Check PCB for damaged patterns and short-circuits.



Once the IC is positioned, tip it diagonal so it cannot move anymore (Solder two opposite corners)

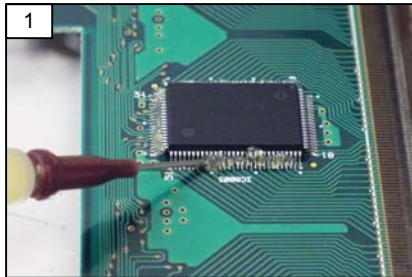


Solder all pins and check very carefully for dry joints or short circuits

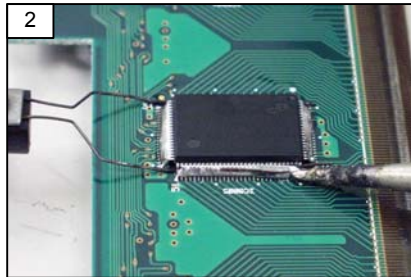
With Chipquick

Another way to remove SMDs is with a special solder made by Chip Quik. The solder is an alloy of tin, lead, indium, and bismuth. Bismuth has a very low thermal conductivity. If it is mixed with tin, the melting point is reduced to 65°C. and so it becomes difficult to damage the PCB. Another advantage is that there is no additional desolder equipment required.

It can be ordered with part number SMD1. This package contains chipquick flux, chipquick solder and alcohol pads.



Apply flux to all pins of the defective SCAN IC



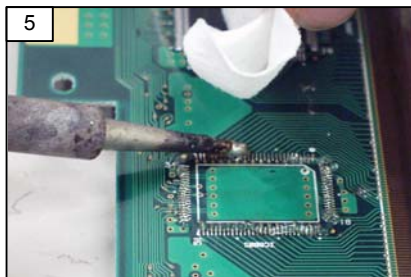
Adjust the temperature of the solder iron to +/- 200°C and melt CHIPQUICK alloy uniformly on all pins.



Maintain the alloy in molten state and remove the SCAN IC with a pick - up tool.



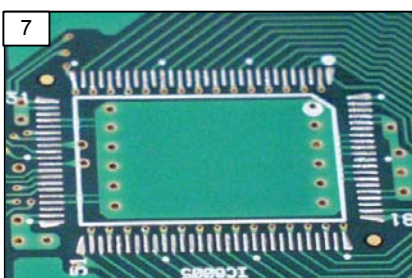
Move the excess with the solder iron to an unused section of the PCB. Remove after it's cooled down.



Clean site with swab dipped in flux while applying heat.



At room temperature, clean the residue with alcohol pad.



PCB is ready to mount the new SCAN IC.

SERVICE KNOWHOW

Date: Sep.14, 2004

No.: SKD04003

MODEL No.

See page 9

SUBJECT 1 How to remove the coating of SCAN IC.

[Required equipment]

tweezers (Curved Tip Tweezers are better than stright ones.)
cutting pliers

[Procedure]

1. Peel the coating a little at the lower left corner of the SCAN IC which has rather more coating.
(be careful not to damage the pattern.)



2. Make a notch at the peeled coating.



3. Pick up the peeled coating by tweezers, and wind them around the point of the tweezers while rotating tweezers.



4. Peel off the coating while rotating tweezers along the SCAN IC.



5. After all the coating around the SCAN IC is peeled off continue to the next page.

Removal of residual blue glue from between IC pins or underneath chip

(Use commercially available Flux Remover)

After removing the larger portion of blue glue with a pair of tweezers, spray the IC pins with Flux Remover and scrub with soft brush. Let stand and repeat several times to remove and soften the glue under the IC.



(Use a soft brush or Q-tip soaked in Flux Remover)

When positive all blue glue has been removed from the leads and underside, proceed to the removal steps on page 4 or 5.



Note: Glue not removed from the IC pins or underneath chip could result in a damaged PC board at the time of IC removal

MODEL No.

PDP-434PC/TAXQ
PDP-434PE/WYVI6
PDP-434PE/WYVI6XK
PDP-434PE/WYVIXK/1
PDP-434PG/TLDFR
PDP-434PU/TUCK
PDP-434PU/TUCKXC
PDP-434CMX/LUC
PDP-43MXE1/LDFK
PDP-43MXE1-S/LDFK
PDP-43MXE1-S/TAXQ
PDP-435PE/WYVI
PDP-435PE/WYVIXK

MODEL No.

PDP-504PC/TAXQ
PDP-504PE/WYVI6
PDP-504PE/WYVI6XK
PDP-504PE/WYVIXK/1
PDP-504PG/TLDFR
PDP-504PU/TUCK
PDP-504PU/TUCKXC
PDP-504CMX/LUC
PDP-50MXE1/LDFK
PDP-50MXE1-S/LDFK
PDP-50MXE1-S/TAXQ
PDP-505PE/WYVI
PDP-505PE/WYVIXK
PDP-5004/KUC

